Original article

Cyberbullying in Different School Types: Examining Severity, Frequency and Coping Capacities Based on Teachers' Views

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Abstract

The aim of the research is to examine the experiences and opinions of teachers in different school types in Northern Cyprus regarding cyberbullying, and to reveal the relationships between the severity, frequency, training and awareness levels of cyberbullying, and their professional and technological competencies in combating it. In line with this purpose, a case study was used as the method since it was aimed to examine teachers' opinions on cyberbullying in a specific context, especially in different school types. The study group of this study consists of 21 teachers working in Northern Cyprus in the fall semester of 2023-2024. However, in order to conduct an in-depth examination in the analysis process, only the opinions of four teachers (Teachers T1, T8, T19 and T20) were taken into consideration. These teachers were determined using the purposive sampling method and were selected according to certain criteria in order to focus on the in-depth analysis of the research on cyberbullying. The data was collected using a semi-structured interview form. The interview questions were structured to address different dimensions of the concept of cyberbullying. Content analysis and thematic analysis methods were used to analyze the obtained data. This study revealed that the severity and frequency of cyberbullying vary by school type, and teachers' awareness and intervention capacity vary by school type. While the impact of training in private colleges is high, in other school types, lack of training increases the frequency of cases. It is recommended that training be applied and technology-focused, intervention protocols be standardized, and mentoring programs be established. Future studies should examine the effectiveness of training programs and strategies specific to school types in more detail.

Keywords: Cyberbullying, Different School Types, Content Analysis, Thematic Analysis.

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INTRODUCTION

With the rapid advancement of technological developments, digital environments have radically transformed not only educational processes but also social interactions between individuals. While the proliferation of the Internet and social media platforms has changed the way students communicate and interact, it has also brought about social problems such as cyberbullying. Cyberbullying is defined as intentional and repeated aggressive behavior carried out through digital technologies (Yıldırım & Yazgan, 2022). According to another definition, cyberbullying is the intentional and regular sending of messages and images intended to hostility and intimidation by an individual or group to others via information and communication technologies (Patchin and Hinduja, 2006; Ybarra and Mitchell, 2004 a, 2004 b). As emphasized in the study of Zhu et al. (2021), cyberbullying is seen as a complex problem that involves the deliberate and constant targeting of individuals on digital platforms. is defined, and its prevalence is increasing worldwide. Cyberbullying, which is also described as a type of harassment, can occur through e-mail, live messaging and communication, online sites and games, and texts or pictures sent to mobile phones (Rajbhandari and Rana, 2023). The person who bullies on the internet does so either as a joke or for fun, or to hurt the other person's feelings. Sometimes, a person does it in the virtual environment or in real life to take revenge or to demonstrate his technological power and skills (Vandebosh and Cleemput, 2007). It is seen that cyberbullying is increasing worldwide. Research shows that this situation creates serious psychological, social, and academic consequences for adolescents and children. These effects disrupt not only the quality of life of individuals, but also the healthy functioning of the classroom and school environment. In short, the negative effects such as loss of self-confidence, academic failure, and depression observed in individuals exposed to cyberbullying have made it necessary to develop strategic approaches to solve this problem (Zhu et al., 2021).

The fact that cyberbullying incidents often occur on digital platforms, independent of school environments, makes it difficult for teachers and school administrators to deal with this problem. Although teachers cannot directly control students' behavior in the digital world, they have an important role in reducing the effects of such situations and developing preventive strategies. Therefore, increasing the awareness of teachers and teacher candidates about cyberbullying and enabling them to develop more effective intervention strategies against such incidents is of critical importance for the healthy functioning of the education system.

The development of teachers' capacity to combat cyberbullying may vary depending on their level of education, educational programs implemented in schools, and practices such as awareness seminars. Teachers who can use technological tools effectively and have received training in digital bullying can create a safer school environment for students. Research shows that developing teachers' capacity to combat cyberbullying is important for creating safer school environments (Yot-Domínguez et al., 2019; Tanrıkulu, 2018; Tosun & Akçay, 2022; Styron et al., 2016). However, in this context, teachers' levels

of technology use, awareness levels, and intervention strategies are very important, and this may differ according to school types. Schools are the main institutions where students develop social skills, gain academic knowledge, and shape their social roles. Therefore, cyberbullying should be addressed not only as an individual problem, but also as a problem affecting the education system. Understanding how the frequency and severity of cyberbullying varies across school types is important to better understand the structural dynamics of this problem. Understanding the challenges teachers face in this regard and developing effective intervention strategies will contribute to creating a safer and more supportive learning environment.

In the literature, it is stated that teachers' inadequacy in coping with emotional difficulties related to cyberbullying and the lack of adequate intervention protocols in this regard prevent effective intervention. Many teachers do not feel competent enough to cope with the emotional pressures related to cyberbullying. In addition, it has been emphasized that teachers develop intervention strategies by having safe conversations with their students and discussing situations through real examples, and that their skills in answering students' questions and managing emotional distress are important in this process (Samara et al. 2020; Thompson, 2022).

Studies on cyberbullying according to school types reveal that teachers' awareness, intervention strategies and technology usage levels may differ. A study conducted in New Zealand examined the perceptions of teachers and school administrators on cyberbullying and showed that school types can have significant effects on the difficulties and tendencies teachers face in this regard and emphasized that teachers working in different school types have different approaches to and intervention methods for cyberbullying (Mattioni et al., 2016). In addition, it has been stated that teachers' varying digital literacy levels and technology usage capacities according to school type have an impact on methods for combating cyberbullying (SchoolSafety.gov.)

Problem Situation

The literature discussed above shows that cyberbullying is spreading rapidly in the digital environment and that teachers' capacity to cope with this phenomenon may vary depending on various factors. At this point, it is important to examine the relationships between the seriousness and frequency of cyberbullying, especially in different types of schools, and teachers' intervention strategies in more depth.

Purpose and Significance of the Study

In this context, the aim of the research is to examine the experiences and opinions of teachers in different types of schools in Northern Cyprus regarding cyberbullying, and to reveal the relationships between the seriousness, frequency, training and awareness levels of cyberbullying, and their

professional and technological competencies in combating it. To achieve this goal, answers were sought to the following sub-questions;

1. Types of Cyberbullying in Schools:

    a. What are the teachers' opinions on the factors affecting its severity?

    b. What are the teachers' opinions on the factors affecting the frequency of their cases?

2. What are the teachers' opinions about the level of awareness and training regarding cyberbullying in different school types?

3. What are the views of teachers in school types regarding professional and technological competencies in combating cyberbullying?

It is thought that the research findings will contribute to the development of policies that will allow teachers to take a more active role in the fight against cyberbullying and will provide an opportunity to better understand the structural dynamics of this problem by analyzing the distribution of the prevalence and severity of cyberbullying in different school types. Furthermore, the information provided by this study will be a valuable resource for future research and applications. Seeking answers to these questions aims to provide both theoretical and practical contributions. In theoretical terms, a new perspective will be presented to understand the factors that affect the effectiveness of teachers in different school types in combating cyberbullying. In practical terms, it is aimed to provide guiding suggestions to decision-makers who develop educational policies and experts who prepare professional development programs for educators. Evaluating factors such as teachers' awareness level, education level and technological equipment together in combating cyberbullying can provide a holistic perspective on this problem. In addition, examining the educational programs implemented in different school types and teachers' strategies for coping with cyberbullying will allow the development of applicable policy suggestions to increase the effectiveness of these strategies.

In conclusion, this research provides a comprehensive framework for understanding the differences between school types and the reasons for these differences in order to increase teachers' effectiveness in combating cyberbullying. Addressing the different dimensions of the effects of cyberbullying on the education system aims to contribute to a deeper understanding of this issue, both to reveal the current situation and to shed light on future research and practice.

METHOD

This research is based on the case study approach, one of the qualitative research designs. A case study is a research method that involves examining a limited system or a group of individuals in order to understand a specific phenomenon in depth. The study aimed to examine teachers' views on cyberbullying in a specific context, especially in different school types.

The study group of this research consists of 21 teachers working in Northern Cyprus in the 2023-2024 fall semester. However, in order to conduct an in-depth examination in the analysis process, only the opinions of four teachers (Teachers T1, T8, T19 and T20) were taken into account. These teachers were determined by the purposive sampling method and were selected according to certain criteria in order to focus on the in-depth analysis of the research on cyberbullying. According to these criteria, attention was paid to ensure that the selected teachers varied in terms of the types of schools they worked in and their levels of digital infrastructure use. T1/Private college, T8/State college, T19/Vocational high school and T20/Public high school. The levels of use of digital tools in these teachers' schools provided a critical basis for understanding the different aspects of cyberbullying. In addition, the detailed and comprehensive opinions of T1, T8, T19 and T20 allowed the most appropriate data to be obtained for the purpose of the research. The views of these teachers provided a meaningful framework for the relationship between digital platform use and cyberbullying in different school types and expanded the scope of the findings. Thus, the views of other teachers were not included in the study; this limitation was made in order to maintain the in-depth analysis focus of the study and to increase the consistency of the data set.

Data Collection Tools

Data was collected using a semi-structured interview form. Interview questions were structured to address different dimensions of the concept of cyberbullying.

Data Collection Process

The data collection process focused on teachers' individual experiences, levels of digital platform use in their schools, and strategies to combat cyberbullying. Interviews with teachers were recorded using a voice recorder. The interviews lasted an average of 40 minutes. These interviews were then converted to a Word file and transferred to an Excel file for analysis and coding.

Data Analysis

Content analysis and thematic analysis methods were used to analyze the data in the study. Content analysis was applied for the first two sub-questions, and thematic analysis was applied for the third sub-question.

For the content analysis, the phenomenology design was used to determine teachers' views on cyberbullying. The phenomenology design focuses on phenomena that are aware of but do not have an in-depth and detailed understanding. In addition, phenomenology research aims to reveal what a phenomenon (event, concept, experience, perception, etc.) means in individuals' lives (Yıldırım & Şimşek, 2016). In the study, the common meaning of teachers' experiences regarding cyberbullying was discussed as a requirement of phenomenology studies (Creswell, 2014). Thematic analysis was preferred to examine in depth the relationships between teachers' awareness in combating cyberbullying, the

effects of educational programs, technology use, and intervention strategies. Thematic analysis is the general name given to qualitative data analysis methods consisting of the processes of creating patterns (themes) from qualitative data, interpreting these patterns, and reporting them (Braun & Clarke, 2021).

Content Analysis; Content analysis was conducted for the first two research questions. At this stage, teachers' explanations about the severity of cyberbullying, the frequency of cases; the relationship between teachers' education level, awareness level and intervention capacity, and how they differed according to school types were grouped under certain categories. The data set was analyzed in order to determine the frequently emphasized themes of teachers' observations and experiences with cyberbullying for each school type. The content analysis process aimed to understand whether certain concepts (e.g., "severity", "distribution", "difference") emerged frequently and how these concepts differed across school types. *Thematic Analysis;* thematic analysis was conducted for the third research question . Thematic analysis was applied to extract certain main themes from the opinions and experiences of the teachers. The data were coded under main themes such as strategies used in combating cyberbullying, teachers' education levels, awareness levels and technology use. The themes were analyzed in depth based on the teachers' observations and experiences, and how differences emerged between school types were determined. This analysis allowed for a detailed examination of intervention strategies specific to each school type and teachers' capacities in combating cyberbullying.

Validity and Reliability / Trustworthiness (Use the relevant ones)

Data Validation: In this study , interviews were used as a data collection tool and findings were reached based on the analyses made on the participants' opinions. Member checking method was applied for data validation. In this method, the analyzed data was presented back to the participants and the accuracy of the analyses was ensured based on the teachers' opinions. This step was an important step in verifying the participants' contributions to the research findings and increasing the reliability of the research.

FINDINGS

Factors Affecting the Severity and Frequency of Cyberbullying in School Types

According to the first question of the research, teachers' opinions on the factors affecting the severity and frequency of cyberbullying in school types were examined. The findings were first analyzed according to the factors affecting the severity of cyberbullying in school types and are given in Table 1, then the factors affecting the frequency of cyberbullying in school types are given in Table 2.

Table 1. (a) Factors Affecting the Severity of Cyberbullying Across School Types

Theme	Sub Theme	School Type		Teacher's View
The Severity of Cyberbullying	Types of cyberbullying	Private College	T1	*....Sharing photos and messages without permission, ...Opening a fake account in the name of a friend, ...Spreading fake news.*
		State College	T8	*... videos and photos taken at the seaside in school uniforms were shared on social media and lynched over this...*
		Vocational High School	T19	*....Threatening messages,.... Sharing photos in groups with derogatory titles, ...Sharing private images in other groups.*
		Regular High School	T20	*...they carry their problems among themselves to the virtual world and spread them...*
	Psychological Effects and Administrative Intervention Capacity	Private College	T1	*It can have negative effects on the psychological development of students. The management's awareness level is high, and problems can be solved quickly.*
		State College	T8	*Bullying seriously affects students' development, but there are deficiencies in solving the problems.*
		Vocational High School	T19	*Students are affected psychologically and are unable to find solutions.*
		Regular High School	T20	*Cyberbullying generally creates problems in psychological development, and it is very difficult to find solutions to these problems.*
	Lack of Education and Awareness	Private College	T1	*There is continuous training, but the more training there is, the more awareness increases.*
		State College	T8	*Lack of education and awareness can cause this problem to grow.*
		Vocational High School	T19	*Training is limited, so there is a huge lack of awareness.*
		Regular High School	T20	*There are many deficiencies in terms of education and awareness.*

When the teachers' opinions on the severity of cyberbullying in school types are examined, it is seen that the types of cyberbullying vary, and their effects vary according to the types of schools. A private college teacher (T1) stated that actions such as sharing photos and messages without permission, opening fake accounts in the name of friends and spreading false news are among the common types of cyberbullying. A teacher working in a state college (T8) stated that cases such as students being lynched after videos and photos taken at the seaside in school uniforms were shared on social media were prominent. A teacher working in a vocational high school (T19) stated that incidents such as threatening messages, photos being changed and shared in groups with derogatory titles and private images being spread in other groups are frequently experienced. A regular high school teacher (T20) emphasized that students carry their problems among themselves to the virtual world and spread them, which causes cyberbullying cases. These findings show that the types of cyberbullying vary according to the types of

schools and that the dynamics specific to the type of school should be taken into consideration in order to understand the impact of this situation on students.

When the teachers' views on the psychological effects of cyberbullying and administrative intervention capacity in school types are examined, it is seen that cyberbullying has serious effects on the psychological development of students and administrative intervention levels vary according to school types. A private college teacher (T1) stated that cyberbullying has negative effects on the psychological development of students, but thanks to the high level of awareness of the school administration, quick solutions are found to the problems. This situation shows that the administrative intervention capacity is strong in private colleges. A teacher working in a state college (T8) stated that cyberbullying seriously affects the development of students, but there are deficiencies in solving these problems. The inadequacy of administrative intervention capacity makes it difficult to solve this problem in state colleges. A teacher working in a vocational high school (T19) stated that cyberbullying has serious psychological effects on students and that the school administration is inadequate in finding solutions to this situation. This situation reveals that both awareness and intervention capacity should be developed in vocational high schools. A teacher working in a regular high school (T20) stated that cyberbullying generally creates problems in the psychological development of students, but there are great difficulties in finding solutions to these problems. This situation shows that administrative intervention capacity is limited in regular high schools and this capacity needs to be increased. While teachers' views generally emphasize the negative effects of cyberbullying on students' psychology, they also reveal that administrative intervention capacity in combating these effects varies significantly according to school types.

When the opinions of teachers regarding the lack of education and awareness in combating cyberbullying in different school types were examined, it was determined that these factors did not differ much according to the type of school, that more education was generally needed in combating cyberbullying, and that there were deficiencies in awareness. The private college teacher (T1) emphasized that there was continuous training, but that awareness would increase as education increased. This situation highlighted the role of education as an important factor in combating cyberbullying. The teacher working in a state college (T8) stated that lack of education and awareness could lead to the growth of this problem. This also points to the points where there were deficiencies in combating cyberbullying. The teacher working in a vocational high school (T19) stated that training was limited and that this was why there was lack of awareness. Finally, the teacher working in a regular high school (T20) stated that there were major deficiencies in terms of education and awareness. This shows that more resources and support are needed in combating cyberbullying.

In summary, teachers' views on the severity of cyberbullying in school types reveal that it is seen in different types and effects. While types of cyberbullying such as unauthorized photo sharing, opening

fake accounts and spreading false news draw attention in private colleges, it has been stated that content shared on social media leads to a lynching culture in state colleges. While threatening messages and humiliating visual sharing are prominent in vocational high schools, it has been stated that students carry their problems to the virtual world in regular high schools. In terms of the psychological effects of cyberbullying, teachers emphasized that students are seriously affected and that these effects vary according to school types. While it is stated that administrative intervention capacity is high in private colleges, this capacity is insufficient in state colleges and vocational high schools, and that there are great difficulties in intervention processes in regular high schools. Deficiencies in education and awareness were also frequently mentioned by teachers. It has been observed that more education is needed in the fight against cyberbullying in all school types, awareness needs to be increased, and current training is generally inadequate. In general, teachers' views suggest that the types of cyberbullying, its psychological effects, and the difficulties encountered in combating it vary across school types, but that education and awareness activities are a critical need in all school types.

Table 2. (b) Factors Affecting the Frequency of Cyberbullying in School Types

Theme	Sub Theme	School Type	Teacher's View	
Frequency of Cyberbullying Cases	Unconscious media use of students	Private College	T1	*He/She doesn't know or think that he needs to get permission when sharing his friends' pictures or videos...*
		State College	T8	*He/She doesn't know what his posts could lead to...*
		Vocational High School	T19	*...does not know the sanctions regarding cyber-crimes...*
		Regular High School	T20	*...cannot predict how things done as a joke will grow into a problem...*
	School Board policy and intervention capacity	Private College	T1	*School administration can take quick solutions, but the increased use of technology affects the frequency of cases.*
		State College	T8	*School administration often fails to intervene effectively, and cases take longer.*
		Vocational High School	T19	*..school administration is generally less able to intervene.*
		Regular High School	T20	*Response capacity is generally low*
	Awareness level	Private College	T1	*A high level of awareness helps cases to be resolved quickly.*
		State College	T8	*The frequency of cases may increase because the level of awareness is lacking.*
		Vocational High School	T19	*Lack of awareness among teachers causes small problems to grow.*
		Regular High School	T20	*Due to the low level of awareness, although there are many cases, few solutions are provided.*

Teachers' views reveal that the factors affecting the frequency of cyberbullying cases vary according to school type. A private college teacher (T1) stated that students do not think they need to ask for permission when sharing their friends' pictures or videos and that unconscious media use increases cyberbullying cases. A state college teacher (T8) stated that students cannot foresee the consequences of their posts and that this increases the frequency of cases. A vocational high school teacher (T19) emphasized that students do not know the sanctions for cybercrimes and that this lack of awareness increases the cases. A regular high school teacher (T20) stated that students who cannot foresee that posts made as jokes can grow into serious problems increase cyberbullying cases.

In terms of the policy and intervention capacity of the school administration, the private college teacher (T1) stated that the increase in the use of technology affected the frequency of cases, but the school administration's capacity to produce quick solutions balanced this situation. The teacher working in a state college (T8) stated that the school administration was generally unable to intervene effectively and therefore the cases continued for a long time. The teacher working in a vocational high school (T19) emphasized that the intervention capacity of the school administration was generally low, while the regular high school teacher (T20) stated that there was difficulty in solving cases due to the limited intervention capacity.

Regarding the level of awareness, a private college teacher (T1) stated that a high level of awareness helps cases to be solved quickly. In contrast, a teacher working at a state college (T8) stated that a lack of awareness increases the frequency of cases. A teacher working at a vocational high school (T19) emphasized that teachers' lack of awareness causes small problems to grow, while a regular high school teacher (T20) stated that a low level of awareness increases the frequency of cases and limits the solution processes.

In general, teachers' views show that the frequency of cyberbullying cases is affected by factors such as students' unconscious media use, school administrations' intervention capacity and awareness levels. These findings reveal that awareness and intervention capacity should be developed by taking into account the dynamics specific to school types.

Cyberbullying-Related Trainings and Teachers' Awareness Levels in School Types

According to the second sub-question of the research, the opinions of teachers regarding the level of awareness and training on cyberbullying in different school types were examined. The findings were analyzed and given in Table 3.

Table 3. Cyberbullying-Related Trainings and Teachers' Awareness Levels in School Types

Theme	Sub Theme	School Type	Teacher's View	
Training and Awareness on Cyberbullying	Participated In-Service Trainings	Private College	T1	*Security training and office training are conducted regularly, which increases teachers' awareness of cyberbullying.*
		State College	T8	*Although our school has annual seminars and conferences, the participation rate is low, which limits teachers' knowledge of cyberbullying.*
		Vocational High School	T19	*Special training is organized in my branch, but there is not enough training on cyberbullying. I think more training should be given on this subject.*
		Regular High School	T20	*Training on cyberbullying is rarely provided in our school, which leaves teachers with limited knowledge on the subject.*
	Teachers' Knowledge Level on Cyberbullying	Private College	T1	*Thanks to the training, teachers can intervene in cyberbullying cases more consciously and effectively.*
		State College	T8	*Since the participation rate in training is low, teachers' knowledge level about cyberbullying is not sufficient and cases occur more frequently.*
		Vocational High School	T19	*I observe that teachers who have not received training on cyberbullying are more insensitive to the issue.*
		Regular High School	T20	*Teachers' knowledge about cyberbullying is often lacking, which makes it difficult to solve cases.*
	Necessity of In-Service Training	Private College	T1	*I think there needs to be more training on cyberbullying. When teachers are aware, cases are resolved faster.*
		State College	T8	*I think that training should be made mandatory. This way, teachers will have a more effective response capacity against cyberbullying.*
		Vocational High School	T19	*We have lack of knowledge on subjects we have not received training on.*
		Regular High School	T20	*I think training should be increased. Unless teachers are conscious of this issue, cases can continue unsolved.*

According to the second sub-question of the research, when the opinions of teachers about the level of awareness of teachers and the trainings about cyberbullying in those types of schools are examined, it is seen that the frequency and quality of in-service trainings directly affect the awareness levels of teachers. A private college teacher (T1) states that regularly organized security and office trainings increase teachers' awareness about cyberbullying and thus they can intervene in cases more effectively. A teacher working in a state college (T8) state that the seminars and conferences organized annually contribute limitedly to the knowledge levels of teachers due to low participation rates and this causes cyberbullying cases to occur more frequently. A teacher working in a vocational high school (T19) states that there are special trainings for his branch, but sufficient training is not provided about cyberbullying, and emphasizes that the lack of knowledge in this area makes teachers insensitive to the

subject. A regular high school teacher (T20) states that the rarely organized training limits the knowledge levels of teachers about cyberbullying and causes difficulties in solving cases.

When considering teachers' understanding of cyberbullying, it is clear that participation in in-service training is crucial. While a private college teacher (T1) stated that teachers can intervene in cases more consciously and effectively thanks to regular training, a teacher working at a state college (T8) stated that the low participation rate leads to inadequate knowledge levels and therefore the frequency of cases increases. A vocational high school teacher (T19) emphasizes that teachers who do not receive training on the subject are less sensitive. A regular high school teacher (T20) stated that teachers' knowledge levels are generally inadequate and that this deficiency makes it difficult to solve cases.

Teachers' views indicate that in-service training on cyberbullying is necessary according to school types and that the awareness level of teachers is an important factor. A private college teacher (T1) stated that cyberbullying cases would be resolved faster if teachers were aware and emphasized that more training should be provided on cyberbullying. This view indicates that as training increases, awareness will increase and problems will begin to be solved more effectively. A teacher working at a state college (T8) stated that training should be made compulsory. According to the teacher, thanks to compulsory training, teachers can have a more effective intervention capacity against cyberbullying. This situation once again reveals the importance of training in combating cyberbullying. A teacher working at a vocational high school (T19) stated that they have a lack of knowledge of the subjects they have not received training on. This situation shows that teachers at vocational high schools do not receive sufficient training on cyberbullying and therefore do not have an effective intervention capacity. A regular high school teacher (T20) thinks that training should be increased. According to the teacher, unless teachers are aware of cyberbullying, cases continue without being solved, and this makes the problems even bigger. This view reveals that lack of education prevents cases from being solved and that teachers can intervene more effectively through education. In general, teachers' views show that education and teachers' awareness level play a critical role in combating cyberbullying according to school types. Increasing and making training mandatory can help strengthen teachers' intervention capacity by increasing their knowledge and awareness about cyberbullying. These findings emphasize that more training should be provided in combating cyberbullying and that raising teachers' awareness on this issue will be an important step in solving cases.

In general, teachers emphasize that training should be increased and made mandatory. Strengthening training can help increase teachers' knowledge and awareness levels, thus helping to resolve cyberbullying cases more effectively.

Professional and Technological Competencies in Combating Cyberbullying in School Types

According to the third sub-question of the research, the opinions of teachers in those school types regarding professional and technological competencies in combating cyberbullying were examined. The findings obtained were given in Table 4 below by creating codes and patterns according to thematic analysis and explanations were made according to thematic analysis stages.

Table 4. Cyberbullying-Related Trainings and Teachers' Awareness Levels in School Types

Theme	School Type	Teach	Awareness Level	Professional Seniority	Education Level	Effectiveness of the Training Program	Technology Usage Level	School Intervention Strategy	Teacher Intervention Capacity	Intervention Self-confidence
Professional and Technological Competencies	Private College	T1.	High	Over 20 Years	Master's degree	Effective/ Sufficient	High (Uses digital tools actively)	Proactive and student-focused intervention strategies	High	High
	State College	T8.	Middle	Over 20 Years	Bachelor degree	Effective/ Insufficient	Middle (Occasionally uses digital tools)	Reactive, intervention based on student complaints	Middle	Middle
	Vocational High School	T19.	Low	11-15 Years	Bachelor degree	Ineffective/ Insufficient	Low (Limited use of digital tools)	No or unclear intervention strategy	Low	Low
	Regular High School	T20.	Middle	16-20 Years	Bachelor degree	Moderately effective/ Insufficient	Middle (Occasionally uses digital tools)	Intervention by observing the students' situation	Middle	Middle

Understanding and Coding the Data: Each column in the table represents a specific variable. First, these variables were examined through codes to determine important concepts and patterns;

Awareness Level: Represents the level of knowledge and awareness of teachers regarding cyberbullying.

Professional Seniority: The length of experience of a teacher can affect awareness and intervention capacity.

Level of Education: It reflects the knowledge base of the teacher through levels such as bachelor and master degree.

Effectiveness of the Training Program: It helps us understand the contribution of training to awareness and self-confidence.

Level of Technology Use: Examines the role of technology in intervention strategies.

School Intervention Strategy: Revealing the contribution of school policies to teachers' intervention processes

Teacher Intervention Capacity and Self-Confidence: Includes the teacher's self-confidence and practical competence when intervening in cases.

Determining Sub-Themes: Possible sub-themes were determined so that each column could be combined into a meaningful sub-theme:

- The Impact of Awareness and Professional Experience

- Effects of Training Programs on Teachers' Awareness and Intervention Self-Confidence

- Relationship Between Technology Use and Intervention Capacity

- The Role of School Intervention Strategies on Teacher Practices

Establishing Relationships: Below, certain relationships have been established between variables :

- ***Awareness Level ↔ Effectiveness of Training Programs:*** Potential for education programs to increase awareness.

- ***Professional Seniority ↔ Intervention Confidence:*** Experienced teachers may have higher intervention confidence.

- ***Level of Technology Use ↔ Response Capacity:*** Technological capabilities to support effective response.

- ***School Type ↔ School Intervention Strategy:*** Variation of strategies applied in different school types.

Presentation of Results:

The Role of Awareness and Education Programs	
Awareness Level and Education	The effectiveness of training programs directly affects teachers' cyberbullying awareness. Teachers' awareness levels about cyberbullying largely depend on the scope and content of the training programs they receive. However, the level of awareness can also be associated with other factors such as the teacher's professional seniority and level of education. Teachers with postgraduate education are especially more conscious in this area. However, it is seen that awareness is shaped not only by education but also by professional seniority and individual interest.
Featured Relationship	When the effectiveness of training programs is high, not only the awareness level of teachers but also their self-confidence in intervention increases. However, this effect may be limited for teachers with low professional experience.
Adequacy of Education Programs	Although all teachers stated that the training contributed, the impact of the trainings is limited if the content is not applied and technology focused. This situation reveals the deficiencies of teachers in practical knowledge and technological tools.
Suggestions	The practical aspect of training should be increased. Enriching educational programs with applied and technology-focused content can increase teachers' awareness and self-confidence levels.
Relationship Between Professional Experience and Self-Confidence	
Professional Experience and Self-Confidence	Experienced teachers exhibit higher self-confidence when intervening in cyberbullying cases. This situation shows the indirect effect of professional seniority on awareness and intervention capacity. Professional seniority is seen to be an important factor in combating cyberbullying. Experienced teachers can intervene in cyberbullying cases more quickly and with more self-confidence due to their past experience.
The Effect of Experience in Case Resolution	Teachers with higher professional seniority are more successful in adapting to school intervention strategies. On the other hand, junior teachers expect more support from school administration in such situations.
Intervention Self-confidence and Education	In addition to professional experience, teachers' self-confidence varies depending on the quality of the education they receive. It is observed that teachers who participate in training programs that include the use of technology have increased self-confidence levels
Suggestions	Technological investments can be made. The technology infrastructure in public schools can be strengthened, allowing teachers to intervene more effectively.
Impact of Technology Use on Intervention	
Technology Usage Level	A high level of technology use increases teachers' intervention capacity and enables them to develop more effective strategies. Teachers who are competent in the use of technology can develop more innovative and effective strategies in combating cyberbullying.
Application Examples	Teachers who use technological tools effectively are more successful in recording incidents, collecting evidence, and implementing school intervention strategies.
Effectiveness and Application	The increased use of technology-based intervention tools, especially in private schools, allows teachers in these schools to exhibit higher self-confidence. In public schools, the use of technology is generally limited.
Suggestions	School intervention strategies should be standardized. Making strategies more inclusive and standardized across different types of schools can facilitate teachers' intervention processes.

School Intervention Strategies	
Policies of Different Types of Schools	Intervention strategies applied in different types of schools shape teachers' capacity and self-confidence levels . While more comprehensive intervention strategies are available in private schools, standard protocols are at the forefront in public schools. While more comprehensive and institutional cyberbullying intervention strategies are implemented in private schools, individual teacher efforts are generally prominent in public schools. While teachers with less professional experience are more affected by these strategies, teachers with more experience can diversify their intervention strategies based on their individual experiences.
Strategy and Education Alignment	In order for intervention strategies to be implemented effectively, teachers' technology use skills and training programs must be compatible. In some cases, strategies remain only at a theoretical level and implementation difficulties are experienced.
Self-confidence and Strategy	School intervention strategies directly affect teachers' self-confidence levels. In cases where strategies are clear and applicable, teachers feel supported and intervene more effectively.
Suggestions	Mentoring inexperienced teachers can be done. Providing mentoring to low-senior teachers by experienced teachers can increase their self-confidence and capacity to intervene.

The findings reached in the research should be explained with tables, figures, graphics or pictures in a way that supports the purpose of the study and research questions and preserves the integrity of the research. While presenting the findings, the order of the research questions should be followed and comments should be made in the discussion section.

Discussion and Conclusion

The findings regarding the first research question revealed that the severity of cyberbullying and the frequency of cases varied according to the type of school. According to teachers' views on the severity of cyberbullying according to the type of school, digital manipulations such as unauthorized photo sharing and creating fake accounts were prominent in private colleges, while content spread on social media in state colleges led to a lynching culture. Threatening messages and humiliating visuals in vocational high schools, and personal conflicts being transferred to the virtual environment in regular high schools are common problems. In terms of psychological effects, cyberbullying has negative effects on the development of students, and these effects differ depending on the administrative intervention capacity that varies according to the type of school. It was stated that the intervention capacity is high in private colleges, while it is insufficient in state colleges and vocational high schools. Lack of education and awareness was determined as a common problem in all types of schools. These findings show that education should be increased, and intervention capacity should be strengthened in the fight against cyberbullying. These findings support the studies of Tunca and Geleri (2020) showing that differences in school types are an important factor in the fight against cyberbullying. According to another study conducted by Gao, J., Yin, H., & Han, Z. (2024), it was stated that the perceived seriousness of cyberbullying and the willingness of eyewitnesses to intervene vary according to different

school types. According to teachers' opinions on the frequency of cyberbullying according to school types, the frequency of cyberbullying cases is affected by different factors according to school types. In private colleges, students' unconscious use of media and in state colleges, the unpredictability of the consequences of the sharing increases the frequency of cases. In vocational high schools, factors such as students' lack of awareness about cybercrimes and joke sharing turning into seriousness in regular high schools increase cyberbullying. The intervention capacity of school administrations is another important factor affecting the frequency of cases; it was stated that the intervention capacity is lower in state colleges, vocational high schools and regular high schools compared to private colleges. In addition, deficiencies in the level of awareness are another factor that increases the frequency of cases. These findings reveal that awareness-raising training and intervention capacity should be strengthened by taking into account the dynamics specific to school types. These findings highlight the role of school-type specific dynamics on the severity, frequency and impacts of cyberbullying, suggesting the need to strengthen intervention capacity with training and awareness-raising measures.

The findings regarding the second sub-question of the study show that the frequency and quality of cyberbullying training in school types have a significant effect on teachers' awareness levels. In the opinions of teachers regarding private colleges, it was emphasized that regularly held security and office trainings increase teachers' knowledge levels about cyberbullying and thus enable them to intervene in cases more effectively. The frequency and content of training in these schools increase teachers' sensitivity to the subject and enable them to be more successful in solving cyberbullying cases. On the other hand, state college, vocational high school and regular high school teachers complain about the inadequacy of in-service training and low participation rates. State college teachers state that seminars and conferences organized annually are held with limited participation and that this does not sufficiently improve teachers' knowledge levels about cyberbullying. Vocational high school teachers also state that sufficient training is not provided on the subject and that these deficiencies desensitize teachers. Regular high school teachers emphasize that the rarely held trainings limit teachers' knowledge levels in combating cyberbullying and make it difficult to solve cases. In general, it is observed that increasing teachers' knowledge about cyberbullying plays an important role in resolving cases more quickly and effectively. It has been observed that teachers in private colleges are more conscious and able to make effective interventions thanks to their high participation rate in training. However, it is understood that the lack of training in other types of schools leads to teachers not having sufficient knowledge on the subject, which in turn leads to an increase in the frequency of cyberbullying cases. According to teachers' views, the frequency and quality of in-service training in combating cyberbullying directly affects teachers' awareness levels. The lack of training and low participation in other types of schools compared to private colleges lead to inadequate knowledge levels of teachers, which increases the frequency of cases. As a result, teachers' views reveal that increasing training specific to school types and strengthening teachers' awareness levels in combating cyberbullying is a critical necessity. These

findings are parallel to the study of Giménez-Gualdo et al. (2018), which revealed that there are differences in teachers' education, awareness and intervention capacities in combating cyberbullying among different types of schools. In addition, Chen, Tang, Zhu, & Chan (2024) found that vocational high school teachers had significantly lower levels of cyberbullying awareness than regular high school teachers and that regular high school teachers intervened more effectively in cyberbullying cases. In addition, the researchers concluded that intervention programs in regular high schools were stronger than in vocational high schools. It was concluded that teachers with a higher level of education could be more effective in combating cyberbullying and could develop a stronger intervention strategy.

Within the scope of the third sub-question of the research, examinations conducted on teachers' professional and technological competencies in combating cyberbullying in school types reveal that teachers' awareness levels, professional seniority, effectiveness of education programs, technology usage levels and school intervention strategies directly affect their success in combating cyberbullying. While it is observed that teachers working in private colleges intervene more effectively in cyberbullying cases thanks to their high level of education, strong awareness and technology usage skills, vocational high school teachers' low level of education and lack of technology usage limit their intervention strategies. Although the effectiveness of education programs increases teachers' awareness levels, its effect is limited in teachers with low professional seniority. In addition, teachers' participation in technology-based training strengthens their intervention capacity, but limited technology usage in public schools prevents this effect. Differences between intervention strategies of school types are also striking. While institutional and comprehensive strategies are implemented in private schools, more individual efforts are prominent in public schools. This is an important factor affecting teachers' intervention self-confidence. Research shows that technology usage can increase teachers' effectiveness in combating cyberbullying. Dikmen and Çağlar (2017) determined in their research that Computer and Educational Technology Education teacher candidates have high sensitivity levels. The findings of this research show that teachers' level of technology use and the effectiveness of training programs are key factors in the success of combating cyberbullying. In addition, Siddiqui and Schultze-Krumbholz (2023) stated in their study that anti-cyberbullying training programs may have unique features and components that can be adopted by teachers to improve results. One of these features is the use of exams and competitions for encouragement and reinforcement at the end of prevention interventions. Such activities encourage teachers to actively participate in interventions and create an anti-bullying environment. Similarly, it has been stated that involving young people and teachers in the design of rules, policies, activities and strategies and providing opportunities to change the existing content according to needs will encourage them to be more active and provide satisfaction by giving them importance in decision-making and achieving the purpose of the intervention.

In summary, this study reveals that teachers' professional and technological competencies in combating cyberbullying across school types are directly related to educational programs and school intervention strategies, and that these elements can strengthen teachers' intervention capacity.

Limitations and Delimitations

In the study, qualitative data were collected based on teachers' statements. While these data provide in-depth insights, they are not supported by quantitative measures, which may limit the generalizability of the findings

Implications

Based on these results, the following suggestions are made; Trainings can be made not only theoretical, but also practical and technology focused. Training programs can be restructured in a way that teachers can actively use technology tools. It has been observed that different strategies are applied according to school types and that these strategies directly affect teachers' intervention capacity. Therefore, standard intervention protocols that can be applied in all school types can be developed. Experienced teachers' guidance to junior teachers can increase their self-confidence and intervention capacity. As a result, mentoring programs can be established, and new teachers can receive assistance. It has been revealed that the level of technology use in schools should be increased. Investments can be made for the use of digital tools in education and the necessary infrastructure can be provided for teachers to use technology effectively. In order to increase the impact of training, teachers can be ensured to participate in post-training monitoring and evaluation processes and programs can be continuously updated with feedback. As for researchers, future studies can examine the effectiveness of training programs in more detail and measure the capacity of these programs to increase teachers' intervention self-confidence. Researchers can conduct studies to develop strategies and tools that will make teachers' use of technology more effective. Significant differences were observed between school types in this study. Researchers can conduct studies to further detail these differences and develop strategies specific to school types. It has been observed that experienced teachers have higher intervention self-confidence. Future studies can deeply examine the effect of professional seniority on teachers' fight against cyberbullying. In light of this research conducted in Northern Cyprus, regional differences can be examined in other studies. This research focused on teacher views. Future studies can provide a broader perspective by including student and parent perspectives.

Declarations

Ethical Issues: The teachers in the study were informed before participating in the study. Participants were given clear information about the purpose, method and data utilisation of the study. Participation was voluntary. The identities of the participants were not disclosed at any stage of the research and all data were collected anonymously. During the data collection process, the personal

information of the participants was kept confidential and used only for the purpose of the research. The research data were stored in a secure environment and were accessible only by the research team. Digital data were encrypted. The research questions were as neutral and impartial as possible to avoid psychological or professional harm to the teachers participating in the research. The possibility of inconveniencing the participants in any way was taken into consideration and no pressure was applied during the research process. The research results are used for academic purposes only. Participants were informed that the research results would be shared with them and that these results would be presented only with anonymised data.

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